


New COVID-19 Vaccine Effectiveness Data Showcase Protection Gained by 3rd and 4th Doses

Media Statement

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A third and fourth COVID-19 vaccine dose offered substantial protection among adults with healthy immune systems who were eligible to receive them during Omicron variant evolution in early 2022, according to a new [MMWR published today](#). The findings of this study, in conjunction with [recently published data](#)  showing people infected with BA.2 may also have antibodies that can protect against illness with BA.5, suggest that currently available vaccines may provide protection against serious illness caused by the currently circulating BA.5 variant.

To evaluate effectiveness of 2, 3, and 4 doses of mRNA COVID-19 vaccines (Pfizer-BioNTech or Moderna) among adults with healthy immune systems, experts examined VISION Network data on more than 214,000 emergency department/urgent care visits and more than 58,000 hospitalizations with a COVID-19–like illness diagnosis in 10 U.S. states from mid-December 2021 through mid-June 2022. Study findings show:

- When BA.1 was the predominant variant, vaccine effectiveness (VE) was 61% for two doses against COVID-19-associated hospitalizations; VE increased to between 85%–92% after receipt of a third/booster dose.
- When BA.2/BA.2.12.1 became predominant, vaccine effectiveness with two doses was 24% against COVID-19-associated hospitalizations and increased to 52%–69% after a third/booster dose.
- Patterns were similar for emergency department and urgent care encounters, with lower VE during BA.2/BA.2.12.1 predominance and higher VE with 3 or 4 doses compared to VE with 2 doses.
- Among adults ages 50 years and older during BA.2/BA.2.12.1, vaccine effectiveness against COVID-19–associated hospitalization was 55% more than 4 months after a booster/third dose and increased to 80% more than a week after the fourth dose

COVID-19 vaccines remain our single most important tool to protect people against serious illness, hospitalization, and death. Getting vaccinated now will not prevent you from getting an authorized variant-specific vaccine in the fall or winter when they are recommended for you. Given recent increases in deaths and hospitalizations associated with the BA.5 variant, everyone should stay up to date with recommended COVID-19 vaccinations, including additional booster doses for those who are moderately to severely immunocompromised and adults over 50.

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